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1           Claims 10, 12 and 20 stand rejected under § 103(a) as being  
2 unpatentable by Te-eni in view of U.S. Patent No. 5,479,476 to Finke-  
3 Anlauff (hereinafter “Finke-Anlauff”).

4           Claims 36, 41 and 42 stand rejected under § 103(a) as being  
5 unpatentable by Kovacs et al (“Adaptive Mobile Access to Context-aware  
6 Service”, IEEE 1999, pp. 190-201).

7           Claims 31-33, 35, 37-38, 40 and 43-47 stand rejected under § 103(a)  
8 as being unpatentable by Kovacs in view of Te-eni.

9           Claims 34 and 39 stand rejected under § 103(a) as being  
10 unpatentable by Kovacs in view of Te-eni and further in view of Finke-  
11 Anlauff.

12           Claims 48 and 50 stand rejected under § 103(a) as being  
13 unpatentable by Kuwahara.

14           Claims 4, 51-53 and 56 stand rejected under § 103(a) as being  
15 unpatentable by Te-eni in view of Nelson.

### 16 17           **The Te-eni Reference**

18           Te-eni discloses a system for location and service provisioning based  
19 on mobile phone location. Te-eni discloses several ways in which a mobile  
20 phone’s location can be determined. However, nowhere does Te-eni  
21 disclose or suggest that the *mobile phone itself* is capable of determining its  
22 *own* location. Rather, Te-eni discloses that various entities *outside* the  
23 mobile phone may determine the phone’s location. Applicant has  
24 thoroughly studied the Te-eni reference and finds that Te-eni discloses that  
25

1 the following entities are capable of determining the mobile phone's  
2 location:

- 3 • a front-end module with assistance from a mobile switching  
4 center (MSC) (*see col. 4, lines 1-3, and col. 9, lines 14-25*);
- 5 • the MSC (*col. 4, lines 16-21; col. 10, line 18, through col. 11,*  
6 *line 7; and col. 20, lines 3-7*);
- 7 • a management system (*col. 4, lines 23-27*);
- 8 • a services management unit (SMU) (*col. 15, line 26, through*  
9 *col. 16, line 2*); and
- 10 • MSC location software (*col. 16, line 30, through col. 17, line*  
11 *8, and col. 18, lines 22-25*).

12  
13 *Every* entity that Te-eni discloses is capable of determining the  
14 mobile phone's location is an entity *outside* the mobile phone (*see, e.g.,*  
15 *Fig. 2*). Applicant can find *no disclosure* or even suggestion that the *mobile*  
16 *phone itself* determines its *own* location.

## 17 18 Claims 2-5

19 **Claim 5** recites a *cellular phone* comprising [emphasis added]:

- 20 • one or more processors *configured to*:
  - 21 ○ receive information that pertains to a current context of  
22 the cellular phone;
  - 23 ○ *determine the current context* based on the  
24 information;
  - 25 ○ modify at least one behavior of the cellular phone  
responsive to the current context; and

- an application program interface that is configured to wirelessly receive information that is associated with the phone's context.

In making out the rejection of claim 5, the Office argues that Te-eni anticipates this claim. Applicant respectfully but strongly disagrees. Te-eni does not disclose or suggest a *cellular phone* configured to *determine a current context*. Te-eni appears to deal with only one type of context – namely, location. As detailed above, not a single embodiment of Te-eni discloses or even remotely suggests a cellular phone configured to determine its *own location*. Rather, a separate entity must always determine the cellular phone's location. Specifically, Te-eni discloses that the location determination is made by either the front end unit, Mobile Switching Center, Service Management Unit, base station, or Mobile Switching Center Location Service. As discussed earlier, Te-eni actually teaches directly *away* from the cellular phone determining its own location.

In the Office's "Response to Arguments", the Office directs Applicant's attention to col. 21, lines 1-4 of Te-eni. In that excerpt, Te-eni states that "the mobile handset's operating software can be further configured to perform certain actions upon receiving commands from a local management system through a short-range transport mechanism. Such commands may include speaker mute, MS shut down switch from ring to vibrate mode etc." The Office then states that it is clear that the " 'commands' would read on the 'context' claimed, in order to perform certain action upon receiving commands, it is clear that the operating

1 software must be able to determine the context in order to modify the  
2 behavior of the mobile unit.”

3 Applicant is somewhat unsure of what the Office is actually  
4 asserting. The only context that Te-eni deals with is *location*. Certainly, the  
5 mobile phone does not need determine its location in order to perform a  
6 speaker mute or other such command. In fact, under Te-eni, the mobile  
7 phone is *completely incapable* of determining its own location. Perhaps the  
8 Office considers the current speaker volume and the current alert mode  
9 (e.g., ring versus vibrate) to be a context as Applicant defines that term. If  
10 so, the Office’s attention is directed to Applicant’s specification, page 17,  
11 lines 14-20, which is reproduced below:

12 In this document, a specific example of context-dependent  
13 computing is given in the form of location dependent computing.  
14 It is to be understood that this constitutes but one example of a  
15 context in which the various embodiments discussed below can  
16 be employed. *Other “contexts” can include, any information*  
17 *that can fit into a hierarchical structure* including, without  
18 limitation, role/personnel in an organization, device  
19 categorizations, current activity, current environment, active  
20 devices and the like.

21 Applicant further discusses the term “context”, as it relates to cell  
22 phones, in the specification on page 51, lines 1-4, which is reproduced  
23 below:

24 Today, however, *cell phones are not aware of their context* and  
25 in particular, their location. Using the inventive systems,  
structures and methods described above, cell phones can be  
imparted with context awareness and location awareness in a way  
never before experienced.

1 From these two excerpts alone, it should be clear that Applicant  
2 defines the term “context” in such a way that a cell phone’s *context* is  
3 distinguished from the *behavior* of a cell phone. Settings such as speaker  
4 volume and alert mode define *behaviors* of a cell phone – not the cell  
5 phone’s *context*. And, because Te-eni does not disclose or even suggest a  
6 cellular phone configured to determine the current *context*, this claim is  
7 allowable.

8 **Claims 2-4** depend from claim 5 and, as such, are allowable as  
9 depending from an allowable base claim. These claims are also allowable  
10 for their own recited features which, in combination with those recited in  
11 claim 5, are neither shown nor suggested by Te-eni either alone or in  
12 combination with any of the references of record.

13 In addition, the Office rejects claim 4 under § 103(a) over the  
14 combination of Te-eni and Nelson. In making out the rejection, the Office  
15 argues that Te-eni discloses all of the claimed limitations in claim 5 except  
16 for a hierarchical traversable tree structure associated with a phone context.  
17 Applicant respectfully disagrees that Te-eni discloses all of the features  
18 recited in claim 5, as noted above. Thus, to the extent that Te-eni does not  
19 anticipate claim 5, the Office has not established a *prima facie* case of  
20 obviousness.

21 Moreover, in reliance on Nelson, the Office argues that it discloses a  
22 hierarchical traversable tree structure associated with a phone context. The  
23 Office further argues that since Nelson teaches the use of hierarchical  
24 traversable trees in connection with computer databases, it would be  
25 obvious to modify Te-eni for using a hierarchical traversable tree in order

1 to traverse effectively from one mode to another mode for setting the phone  
2 to operate according to an instructed mode. Applicant respectfully  
3 disagrees.

4 Exploring the context of Nelson in more detail, the hierarchical tree  
5 based scheme that Nelson discloses is one that is similar to one described as  
6 the Dataman system discussed in section 2.2.1. In Nelson's system, each  
7 leaf node of the tree represents a base station and the internal nodes of the  
8 tree represent location servers. See, e.g. section 2.2.2, first paragraph.  
9 According to the system described in section 2.2.2, each location server  
10 maintains information regarding mobile hosts residing in the subtree  
11 beneath it and maintains three tuples—a mobile host identifier that provides  
12 the address of the host's home location, a forwarding pointer that identifies  
13 which location server the host has moved to, and a timestamp that indicates  
14 the time that the last forwarding took place. Base stations are said to  
15 maintain a similar structure for each host contained within its cell. By  
16 using forwarding pointers various updates strategies can be used. Nelson  
17 instructs that periodically, the forwarding pointers are collapsed and a  
18 single pointer is created. Searching is conducted by progressively moving  
19 up the tree until a location server is found which contains a record for the  
20 required host.

21 Simply put, the hierarchical tree structure that Nelson discloses is  
22 not utilized by mobile devices. Rather, the structure is utilized by either the  
23 base station or the location server to find a record for the required host. To  
24 this extent, Nelson teaches directly away from the subject matter of claims  
25 4 and 5 which collectively recite a cellular phone that determines its own

1 context by traversing at least one node on one or more hierarchical  
2 traversable tree structures. Thus, the Office has failed to establish a *prima*  
3 *facie* case of obviousness for at least this additional reason.

#### 4 5 **Claims 6-14**

6 **Claim 6** recites a method of operating a cellular phone comprising  
7 [emphasis added]:

- 8  
9 • wirelessly receiving, with the cellular phone, information that  
10 pertains to a context of the cellular phone, the cellular phone  
11 being configured to receive said information from different  
12 types of context providers that provide different forms of  
13 information;
- 14 • responsive to said receiving and ***using only the cellular  
15 phone and its associated on-board componentry,***  
16 determining a cellular phone context and modifying at least  
17 one behavior associated with the cellular phone.

18  
19 In making out the rejection of this claim, the Office again argues that  
20 this claim is anticipated by Te-eni. Applicant strongly disagrees. Te-eni  
21 does not disclose or suggest a method of operating a cellular phone  
22 comprising determining a cellular phone context ***using only the cellular  
23 phone and its associated on-board componentry.*** Te-eni appears to deal  
24 with only one type of context – namely, location. As detailed above, not a  
25 single embodiment of Te-eni discloses or even remotely suggests a method  
of determining a cellular phone context ***using only the cellular phone and  
its associated on-board componentry.*** Rather, a separate entity must  
always determine Te-eni's cellular phone's location. Specifically, Te-eni  
discloses that the location determination is made by either the front end



1 unit, Mobile Switching Center, Service Management Unit, base station, or  
2 Mobile Switching Center Location Service. As discussed earlier, Te-eni  
3 actually teaches directly *away* from a method of determining a cellular  
4 phone context *using only the cellular phone and its associated on-board*  
5 *componentry*.

6 In the Office's "Response to Arguments", the Office directs  
7 Applicant's attention to col. 21, lines 1-4 of Te-eni. In that excerpt, Te-eni  
8 states that "the mobile handset's operating software can be further  
9 configured to perform certain actions upon receiving commands from a  
10 local management system through a short-range transport mechanism. Such  
11 commands may include speaker mute, MS shut down switch from ring to  
12 vibrate mode etc." The Office then states that it is clear that the  
13 "'commands' would read on the 'context' claimed, in order to perform  
14 certain action upon receiving commands, it is clear that the operating  
15 software must be able to determine the context in order to modify the  
16 behavior of the mobile unit."

17 Applicant is somewhat unsure of what the Office is actually  
18 asserting. The only context that Te-eni deals with is *location*. Certainly, the  
19 mobile phone does not need to determine its location in order to perform a  
20 speaker mute or other such command. In fact, under Te-eni, there is *no*  
21 method of determining the context of a cellular phone *using only the*  
22 *cellular phone and its associated on-board componentry*. Perhaps the  
23 Office considers the current speaker volume and the current alert mode  
24 (e.g., ring versus vibrate) to be a context as Applicant defines that term. If  
25

1 so, the Office's attention is directed to Applicant's specification, page 17,  
2 lines 14-20, which is reproduced below:

3 In this document, a specific example of context-dependent  
4 computing is given in the form of location dependent computing.  
5 It is to be understood that this constitutes but one example of a  
6 context in which the various embodiments discussed below can  
7 be employed. ***Other "contexts" can include, any information***  
8 ***that can fit into a hierarchical structure*** including, without  
9 limitation, role/personnel in an organization, device  
10 categorizations, current activity, current environment, active  
11 devices and the like.

12 Applicant further clarifies the term "context", as it relates to cell  
13 phones, in the specification on page 51, lines 1-4, which is reproduced  
14 below:

15 Today, however, ***cell phones are not aware of their context*** and  
16 ***in particular, their location.*** Using the inventive systems,  
17 structures and methods described above, cell phones can be  
18 imparted with context awareness and location awareness in a way  
19 never before experienced.

20 From these two excerpts alone, it should be clear that Applicant  
21 defines the term "context" in such a way that a cell phone's ***context*** is  
22 distinguished from the ***behavior*** of a cell phone. Settings such as speaker  
23 volume and alert mode define ***behaviors*** of a cell phone – not the cell  
24 phone's ***context***. And because Te-eni does not disclose or even suggest a  
25 method of determining a cellular phone ***context using only the cellular***  
***phone and its associated on-board componentry***, this claim is allowable.

Claims 7-14 depend from claim 6 and, as such, are allowable as  
depending from an allowable base claim. These claims are also allowable

1 for their own recited features which, in combination with those recited in  
2 claim 6, are neither shown nor suggested by Te-eni either singly or in  
3 combination with any of the references of record either singly or in  
4 combination with one another. In addition, claims 10 and 12 stand rejected  
5 under § 103(a) based on Te-eni and Finke-Anlauff. In making out the  
6 rejection of these claims, the Office argues that Te-eni discloses all of the  
7 limitations in claim 10. Applicant respectfully disagrees. As noted above,  
8 Te-eni does not anticipate claim 6 and, in point of fact, teaches directly  
9 away from the subject matter of this claim. As such, the Office has failed  
10 to establish a *prima facie* case of obviousness with respect to the  
11 combination with Finke-Anlauff. Hence, for this additional reason, claims  
12 10 and 12 are allowable.

### 13 14 Claims 15-16

15 **Claim 15** recites one or more readable media having readable  
16 instructions thereon which, when executed by a cellular phone, *cause the*  
17 *cellular phone to* [emphasis added]:

- 18
- 19 • wirelessly receive information from different context source  
20 information types that provide different forms of information  
21 that pertains to a context of the cellular phone; and
  - 22 • responsive to receiving the information, *determine the*  
23 *cellular phone context* and modify at least one behavior  
24 associated with the cellular phone.

25 In making out the rejection of claim 15, the Office argues that Te-eni  
anticipates this claim. Applicant respectfully but strongly disagrees. Te-eni  
does not disclose or suggest one or more computer-readable media having

1 readable instructions thereon which, when executed by a cellular phone,  
2 cause the cellular phone to *determine the cellular phone context*. Te-eni  
3 appears to deal with only one type of context – namely, location. As  
4 detailed above, not a single embodiment of Te-eni discloses or even  
5 remotely suggests instructions which cause the cellular phone to *determine*  
6 *the cellular phone location*. Rather, a separate entity must always  
7 determine the cellular phone's location. Specifically, Te-eni discloses that  
8 the location determination is made by either the front end unit, Mobile  
9 Switching Center, Service Management Unit, base station, or Mobile  
10 Switching Center Location Service. As discussed earlier, Te-eni actually  
11 teaches directly *away* from instructions which cause the cellular phone to  
12 *determine the cellular phone location*.

13 In the Office's "Response to Arguments", the Office directs  
14 Applicant's attention to col. 21, lines 1-4 of Te-eni. In that excerpt, Te-eni  
15 states that "the mobile handset's operating software can be further  
16 configured to perform certain actions upon receiving commands from a  
17 local management system through a short-range transport mechanism. Such  
18 commands may include speaker mute, MS shut down switch from ring to  
19 vibrate mode etc." The Office then states that it is clear that the  
20 "'commands' would read on the 'context' claimed, in order to perform  
21 certain action upon receiving commands, it is clear that the operating  
22 software must be able to determine the context in order to modify the  
23 behavior of the mobile unit."

24 Applicant is somewhat unsure of what the Office is actually  
25 asserting. The only context that Te-eni deals with is *location*. Certainly, the

1 mobile phone does not need determine its location in order to perform a  
2 speaker mute or other such command. In fact, under Te-eni, the mobile  
3 phone is ***completely incapable*** of determining its own location. Perhaps the  
4 Office considers the current speaker volume and the current alert mode  
5 (e.g., ring versus vibrate) to be a context as Applicant defines that term. If  
6 so, the Office's attention is directed to Applicant's specification, page 17,  
7 lines 14-20, which is reproduced below:

8       In this document, a specific example of context-dependent  
9       computing is given in the form of location dependent computing.  
10      It is to be understood that this constitutes but one example of a  
11      context in which the various embodiments discussed below can  
12      be employed. ***Other "contexts" can include, any information  
13      that can fit into a hierarchical structure*** including, without  
14      limitation, role/personnel in an organization, device  
15      categorizations, current activity, current environment, active  
16      devices and the like.

17       Applicant further defines the term "context", as it relates to cell  
18      phones, in the specification on page 51, lines 1-4, which is reproduced  
19      below:

20       Today, however, ***cell phones are not aware of their context*** and  
21      in particular, their location. Using the inventive systems,  
22      structures and methods described above, cell phones can be  
23      imparted with context awareness and location awareness in a way  
24      never before experienced.

25       From these two excerpts alone, it should be clear that Applicant  
26      defines the term "context" in such a way that a cell phone's ***context*** is  
27      distinguished from the ***behavior*** of a cell phone. Settings such as speaker  
28      volume and alert mode define ***behaviors*** of a cell phone – not the cell

1 phone's *context*. And because Te-eni does not disclose or even suggest  
2 instructions which cause the cellular phone to *determine the cellular phone*  
3 *context*, this claim is allowable.

4 **Claim 16** depends from claim 15 and, as such, is allowable as  
5 depending from an allowable base claim. This claim is also allowable for  
6 its own recited features which, in combination with those recited in claim  
7 15, are neither shown nor suggested by Te-eni either singly or in  
8 combination with any of the references of record.

9  
10 **Claims 17-23**

11 **Claim 17** recites a *cellular phone* comprising [emphasis added]:

- 12 • multiple different types of location providers which  
13 collectively are configured to receive different forms of  
location information that can be *used by the cellular phone to*  
*ascertain its location*; and
- 14 • one or more processors configured to:
  - 15 ○ receive information associated with a current location  
of the cellular phone; and
  - 16 ○ modify at least one behavior of the cellular phone  
responsive to the information.

17  
18 In making out the rejection of this claim, the Office argues that the  
19 subject matter of this claim is rendered obvious by the combination of Te-  
20 eni and Kuwahara.

21 Here again, the Office relies on Te-eni in arguing that it discloses a  
22 cellular phone which is capable of determining its location. The Office then  
23 states that although Te-eni fails to disclose the step of ascertaining its  
24 location from multiple location information, such step is known in the art as  
25 disclosed by Kuwahara. Applicant respectfully traverses the rejection and

1 respectfully submits that the Office has failed to make out a *prima facie*  
2 case of obviousness.

3 Te-eni does not disclose or suggest a *cellular phone* which  
4 *ascertains its location*. As detailed above, not a single embodiment of Te-  
5 eni discloses or even remotely suggests a cellular phone configured to  
6 determine its *own location*. Rather, a separate entity must always determine  
7 the cellular phone's location. Specifically, Te-eni discloses that the location  
8 determination is made by either the front end unit, Mobile Switching  
9 Center, Service Management Unit, base station, or Mobile Switching  
10 Center Location Service. As discussed earlier, Te-eni actually teaches  
11 directly *away* from the cellular phone determining its own location.

12 In the Office's "Response to Arguments", the Office directs  
13 Applicant's attention to col. 10, line 27 through col. 12, line 1, of Te-eni.  
14 This excerpt is reproduced below:

15 By measuring signal strength, propagation delay, or both from  
16 each of the receiving antennas 36-38, the distance of the mobile  
17 unit 32 from each antenna is calculated. Arcs of possible  
18 locations of the mobile unit are then derived from the calculated  
19 distances. Well known geographic intersection techniques such  
20 as triangulation, arculation, probability density functions, and the  
21 like are then used to calculate the location of the mobile unit.

22 This excerpt does not disclose or suggest that it is the *mobile unit*  
23 *itself* that determines its own location. Rather, the excerpt describes *how*  
24 the location of the mobile unit is determined by an entity other than the  
25 mobile unit. In fact, Te-eni, *immediately after this excerpt*, goes on to  
explain the entity which actually determines the location is either the MSC,

1 front end unit, or base station. A continuation of the excerpt the Office cites  
2 is reproduced below [emphasis added]:

3 The front end unit 34 converts the measured signal strength,  
4 propagation delay, or both from each of the antennas 36-38 into  
5 digital format and transmits the measured values to a nearby base  
6 station 39. In the preferred embodiment, all measurements from  
7 various base stations are relayed to the *MSC*, wherein a processor  
8 unit 30 *calculates the location* of all mobile units in the vicinity  
9 of regulated areas wherein a front end unit is installed. It should  
10 be understood that the location of the processor unit may be  
11 *either within the front end unit 34 or within the base station 39*  
12 *as well as the MSC 30.*

13 Therefore, not only is there *no* disclosure or suggestion to have the  
14 *mobile unit itself* determine its own location, Te-eni teaches directly *away*  
15 from that concept by specifying several alternative locations for the  
16 processing unit – *all* of which are entities *separate* from the mobile unit.

17 Accordingly, for at least this reason, the Office has failed to establish  
18 a *prima facie* case of obviousness and this claim is allowable.

19 **Claims 18-23** depend from claim 17 and, as such, are allowable as  
20 depending from an allowable base claim. These claims are also allowable  
21 for their own recited features which, in combination with those recited in  
22 claim 17, are neither shown nor suggested by the references of record either  
23 singly or in combination with one another. In addition, given the Office's  
24 failure to establish a *prima facie* case of obviousness, the rejection of claim  
25 20 over Finke-Anlauff is not seen to add anything of significance.

#### **Claims 24-27 and 29-47**

**Claim 24** recites a *cellular phone* comprising [emphasis added]:



- receiving means configured to wirelessly receive multiple different forms of information that pertains to a current location of a cellular phone and use said multiple different forms of information to *ascertain the current location*; and
- means to modify at least one behavior associated with the cellular phone responsive to said information.

In making out the rejection of this claim, the Office argues that the subject matter of this claim is disclosed by Te-eni. Here again, the Office relies on Te-eni in arguing that it discloses a cellular phone with means to ascertain the current location.

Te-eni does not disclose or suggest a *cellular phone* which means to *ascertains the current location*. As detailed above, not a single embodiment of Te-eni discloses or even remotely suggests a cellular phone with means to ascertain *its own current location*. Rather, a separate entity must always determine the cellular phone's location. Specifically, Te-eni discloses that the location determination is made by either the front end unit, Mobile Switching Center, Service Management Unit, base station, or Mobile Switching Center Location Service. As discussed earlier, Te-eni actually teaches directly *away* from the cellular phone determining its own location.

In the Office's "Response to Arguments", the Office directs Applicant's attention to col. 10, line 27 through col. 12, line 1, of Te-eni. This excerpt is reproduced below:

By measuring signal strength, propagation delay, or both from each of the receiving antennas 36-38, the distance of the mobile unit 32 from each antenna is calculated. Arcs of possible

1 locations of the mobile unit are then derived from the calculated  
2 distances. Well known geographic intersection techniques such  
3 as triangulation, arculation, probability density functions, and the  
4 like are then used to calculate the location of the mobile unit.

5 This excerpt does not disclose or suggest that it is the *mobile unit*  
6 *itself* that determines its own location. Rather, the excerpt describes *how*  
7 the location of the mobile unit is determined by an entity other than the  
8 mobile unit. In fact, Te-eni, *immediately after this excerpt*, goes on to  
9 explain the entity which actually determines the location is either the MSC,  
10 front end unit, or base station. A continuation of the excerpt the Office cites  
11 is reproduced below [emphasis added]:

12 The front end unit 34 converts the measured signal strength,  
13 propagation delay, or both from each of the antennas 36-38 into  
14 digital format and transmits the measured values to a nearby base  
15 station 39. In the preferred embodiment, all measurements from  
16 various base stations are relayed to the *MSC*, wherein a processor  
17 unit 30 *calculates the location* of all mobile units in the vicinity  
18 of regulated areas wherein a front end unit is installed. It should  
19 be understood that the location of the processor unit may be  
20 *either within the front end unit 34 or within the base station 39*  
21 *as well as the MSC 30*.

22 Therefore, not only is there *no* disclosure or suggestion of means to  
23 allow the *mobile unit itself* determine its own location, Te-eni teaches  
24 directly *away* from that concept by specifying several alternative locations  
25 for the processing unit – *all* of which are entities *separate* from the mobile  
unit.

Accordingly, for at least this reason, this claim is allowable.

Claims 25-27 depend from claim 24 and, as such, are allowable as  
depending from an allowable base claim. These claims are also allowable

1 for their own recited features which, in combination with those recited in  
2 claim 24, are neither shown nor suggested by Te-eni either singly or in  
3 combination with any of the references of record.

4  
5 **Claims 29-30**

6 **Claim 29** recites a method of managing cellular phone behavior  
7 comprising [emphasis added]:

- 8
- 9 • defining one or more cellular phone behaviors for a given  
10 location; and
  - 11 • wirelessly transmitting information to cellular phones within  
12 that location that permits cellular phones to automatically  
13 modify their behavior while in that location, wherein said  
14 transmitting information comprises transmitting information  
15 that is associated with a *location type* that has attributes that  
16 define a cellular phone behavior.

17  
18 In making out the rejection of this claim, the Office argues that Te-  
19 eni anticipates this claim. Applicant respectfully but strongly disagrees.  
20 Te-eni does not disclose or suggest transmitting information associated  
21 with a location *type* that has attributes that define a cellular phone behavior.  
22 Rather, Te-eni discloses a basic usage policy database with *specific* location  
23 *instances* in which certain services are allowed or denied.

24 In the Office's "Response to Arguments", the Office directs  
25 Applicant's attention to col. 13, line 22 through col. 14, line 9, and col. 21,  
line 1-4, of Te-eni. These excerpts, excluding Te-eni's Table 1, are  
reproduced below [emphasis added]:

1 Table 1 describes a basic usage policy database for a cellular  
2 system in accordance with one embodiment of the present  
3 invention. Line 1 sets the basic rule – all subscribers are allowed  
4 access to all services at all time. Line 2 denies all cellular  
5 services from all subscribers located within *the* hospital at all  
6 time. Lines 3 and 4 limit all subscribers located at *the* concert  
7 hall (except 245677) to SMS services only during *the* concert  
8 time (22:00-24:00). Line 9 provides additional services to User  
9 518603 when located in *the* company factory area, including  
10 wider bandwidth for network connection and video conferencing,  
11 better quality of service, reduced price, conference call services  
12 etc. Similarly, the availability and price of additional services  
13 may be determined respective to MIN and user profile definitions  
14 versus user current location and regulated areas database.

15 The mobile handset's operating software can be further  
16 configured to perform certain actions upon receiving commands  
17 from a local management system through a short-range transport  
18 mechanism. Such commands may include speaker mute, MS shut  
19 down, switch from ring to vibrate mode etc.

20 The Office states that "it is clear that when a user is located within *a*  
21 hospital or concert hall, services are denied and a command such as 'MS  
22 shut down' is transmitted to the mobile, such command message 'MS shut  
23 down' is the information **associated** with the location type (i.e., hospital or  
24 concert) and the 'MS shut down' is also the attribute of the location type as  
25 claimed."

Applicant respectfully submits that the Office is incorrectly equating  
Te-eni's *specific* location *instance* with Applicant's location *type*.

As the excerpt above indicates, Te-eni discloses a usage policy  
database for *specific* location *instances*. For example, Te-eni does not  
disclose a location *type* which would include more than one *instance* of a  
hospital location. Instead, line 2 deals with "*the*" hospital. Likewise, lines  
3 and 4 deal with "*the*" concert hall. Te-eni's Fig. 5 confirms this in step

1 54. Step 54 determines whether there is a usage policy defined for a  
2 *specific* location. Step 56 allows or denies service according to the  
3 “location *specific*” usage policy. According to Te-eni then, there is no  
4 single rule which would apply to *more than one* hospital by virtue of the  
5 fact that it is a hospital location *type*. Similarly, the rule for a *specific*  
6 concert hall would not be applicable to any other environment calling for a  
7 similar usage policy or even another concert hall. For example, the Office’s  
8 attention is respectfully directed to Te-eni’s Table 1, lines 3 and 5. There,  
9 Te-eni sets up separate rules for a *specific* concert hall and a *specific*  
10 cinema. This is despite the fact that the rules are *identical*. Both location  
11 *instances* call for rules denying all services except SMS between the hours  
12 of 10 p.m. and midnight. Applicant submits that Te-eni’s system is  
13 *inefficient, wasteful, and needlessly repetitive*.

14 The claimed subject matter, on the other hand, simplifies the  
15 association of location and behaviors through the use of multiple *class*  
16 *types* and various attributes that are associated with the class types.  
17 Applicant describes this inventive concept on page 58 of the specification.  
18 Lines 3-18 of page 58 are reproduced below [emphasis added]:

19 Step 1700 defines one or more class types and step 1702  
20 associates attributes with the class types. The class types are  
21 intended to describe certain *types of locations* where, for  
22 example, certain cell phone behaviors are desired. The attributes  
23 that are associated with the class types define the cell phone  
24 behavior that is desired for that class *type*. Various examples of  
25 this are given in Fig. 16. For example, for a class type 1,  
attributes are that the ringer is turned off, and so on. Step 1704  
associates class types with *multiple different locations*. Each  
location is associated with a class *type*. Accordingly, at these  
locations, cell phone behavior of location-aware cell phones can

1 be governed by the attributes that are associated with that class  
2 *type*. This provides a simple infrastructure for implementing  
3 context-aware phones. By utilizing the concept of class types,  
4 those individuals who are in charge of overseeing the context-  
5 awareness of their particular locations need not be concerned  
6 with anything other than selecting the correct class type for their  
7 location. They can do this by simply reviewing the attributes that  
8 are associated with the different class types and then selecting an  
9 appropriate class *type*.

10 Te-eni neither discloses nor suggests any such subject matter.  
11 Rather, Te-eni *teaches directly away* from the subject matter of this claim  
12 by specifically teaching that a basic usage policy is defined for each  
13 location *instance*.

14 Accordingly, for at least this reason, this claim is allowable.

15 **Claim 30** depends from claim 29 and, as such, is allowable as  
16 depending from an allowable base claim. This claim is also allowable for  
17 its own recited features which, in combination with those recited in claim  
18 29, are neither shown nor suggested by Te-eni either singly or in  
19 combination with any of the references of record.

### 20 **Claims 31-35**

21 **Claim 31** recites a method of managing cellular phone behavior  
22 comprising [emphasis added]:

- 23 • providing one or more transmitters that are configured to  
24 transmit information that permits cellular phones to  
25 automatically modify their behavior, at least a portion of the  
information pertaining to one or more *class types individual  
ones of which* are associated with various attributes that  
define the behavior of cellular phones;

- placing the one or more transmitters in a location where a particular cellular phone behavior is desired; and
- transmitting information using said one or more transmitters.

In making out the rejection of this claim, the Office argues that the subject matter of this claim is suggested by the combination of Kovacs and Te-eni. Specifically, the Office argues that Kovacs discloses one or more class types individual ones of which are associated with various attributes that define the behavior of cellular phones. Applicant respectfully but strongly disagrees.

The Office cites to Kovacs for a mention of silent vibration during a concert. The relevant paragraph in col. 2 of page 190 is provided below:

Another trend results from a high market pressure that mobile devices must adapt to the current user situation. For instance, customers require that a mobile telephone's call indication might be issued through different means, e.g., through a silent vibration while being in a (classic) concert or through a direct flashing in a noisy environment (like a rock concert). Other examples can be found through network features like call forwarding, universal personal identification numbers, or voice mailboxes.

Applicant respectfully submits that this brief mention of the need for different cell phone behaviors in different environments does not even come close to disclosing "providing one or more transmitters that are configured to transmit information that permits cellular phones to automatically modify their behavior, at least a portion of the information pertaining to one or more class types individual ones of which are associated with various attributes that define the behavior of cellular

1 phones.” For instance, Kovacs does not disclose or suggest the notion of  
2 *class types*, as that term is defined and used in Applicant’s specification.

3 In the Office’s “Response to Arguments”, the Office argues that “the  
4 environments such as hospital or theater would read on ‘class types’ as  
5 claimed.” Applicant again respectfully but strongly disagrees. The Office’s  
6 argument parallels the one the Office made regarding Te-eni in claim 29.

7 Te-eni discloses a usage policy database for *specific* location  
8 *instances*. For example, Te-eni does not disclose a location *type* which  
9 would include more than one *instance* of a hospital location. Instead, line 2  
10 deals with “*the*” hospital. Likewise, lines 3 and 4 deal with “*the*” concert  
11 hall. Te-eni’s Fig. 5 confirms this in step 54. Step 54 determines whether  
12 there is a usage policy defined for a *specific* location. Step 56 allows or  
13 denies service according to the “location *specific*” usage policy. According  
14 to Te-eni then, there is no single rule which would apply to *more than one*  
15 hospital by virtue of the fact that it is a hospital location *type*. Similarly, the  
16 rule for a *specific* concert hall would not be applicable to any other  
17 environment calling for a similar usage policy or even another concert hall.  
18 For example, the Office’s attention is drawn to Te-eni’s Table 1, lines 3 and  
19 5. Te-eni sets up separate rules for a *specific* concert hall and a *specific*  
20 cinema. This is despite the fact that the rules are *identical*. Both location  
21 *instances* call for rules denying all services except SMS between the hours  
22 of 10 p.m. and midnight. Applicant submits that Te-eni’s system is  
23 *inefficient, wasteful, and needlessly repetitive*.

24 Applicant, on the other hand, simplifies the association of location  
25 and behaviors through the use of multiple *class types* and various attributes



1 that are associated with the class types. Applicant describes this inventive  
2 concept on page 58 of the specification. Lines 3-18 of page 58 are  
3 reproduced below [emphasis added]:

4 Step 1700 defines one or more class types and step 1702  
5 associates attributes with the class types. The class types are  
6 intended to describe certain *types of locations* where, for  
7 example, certain cell phone behaviors are desired. The attributes  
8 that are associated with the class types define the cell phone  
9 behavior that is desired for that class *type*. Various examples of  
10 this are given in Fig. 16. For example, for a class type 1,  
11 attributes are that the ringer is turned off, and so on. Step 1704  
12 associates class types with *multiple different locations*. Each  
13 location is associated with a class *type*. Accordingly, at these  
14 locations, cell phone behavior of location-aware cell phones can  
15 be governed by the attributes that are associated with that class  
16 *type*. This provides a simple infrastructure for implementing  
17 context-aware phones. By utilizing the concept of class types,  
18 those individuals who are in charge of overseeing the context-  
19 awareness of their particular locations need not be concerned  
20 with anything other than selecting the correct class type for their  
21 location. They can do this by simply reviewing the attributes that  
22 are associated with the different class types and then selecting an  
23 appropriate class *type*.

24 Te-eni neither discloses nor suggests any such subject matter.  
25 Rather, Te-eni *teaches directly away* from the subject matter of this claim  
by specifically teaching that a basic usage policy is defined for each  
location *instance*.

In addition, there is nothing in Kovacs that discloses or suggests  
anything beyond what Te-eni discloses – that is, certain behavior defined  
for each location *instance*.

Therefore, neither the primary or secondary reference cited by the  
Office in the rejection of this claim disclose or suggest the use of *class*

1 *types* to define the behavior of cellular phones. Accordingly, for at least this  
2 reason, the Office has failed to establish a *prima facie* case of obviousness  
3 and this claim is allowable.

4 **Claims 32-35** depend from claim 31 and, as such, are allowable as  
5 depending from an allowable base claim. These claims are also allowable  
6 for their own recited features which, in combination with those recited in  
7 claim 31, are neither shown nor suggested in the references of record either  
8 singly or in combination with one another. In addition, given the Office's  
9 failure to establish a *prima facie* case of obviousness, the rejection of claim  
10 34 over the combination with Finke-Anlauff is not seen to add anything of  
11 significance.

#### 12 13 **Claims 36-40**

14 **Claim 36** recites a method of managing cellular phone behavior  
15 comprising [emphasis added]:

- 16
- 17 • defining one or more *class types* each of which can be  
18 associated with a location for which a particular cellular  
19 phone behavior is desired; and
  - 20 • associating attributes with the one or more class types, the  
21 attributes defining cellular phone behavior.

22 In making out the rejection of this claim, the Office argues that the  
23 subject matter of this claim is anticipated or suggested by Kovacs.  
24 Specifically, the Office argues that Kovacs discloses one or more class  
25 types each of which can be associated with a location for which a particular

1 cellular phone behavior is desired. Applicant respectfully but strongly  
2 disagrees.

3 Before discussing how the claimed subject matter is patentably  
4 distinct from Kovacs' disclosure, Applicant will discuss the meaning of  
5 "class types" as Applicant has defined the term in the specification.  
6 Applicant simplifies the association of location and behaviors through the  
7 use of multiple *class types* and various attributes that are associated with  
8 the class types. Applicant describes this inventive concept on page 58 of  
9 the specification. Lines 3-18 of page 58 are reproduced below [emphasis  
10 added]:

11 Step 1700 defines one or more class types and step 1702  
12 associates attributes with the class types. The class types are  
13 intended to describe certain *types of locations* where, for  
14 example, certain cell phone behaviors are desired. The attributes  
15 that are associated with the class types define the cell phone  
16 behavior that is desired for that class *type*. Various examples of  
17 this are given in Fig. 16. For example, for a class type 1,  
18 attributes are that the ringer is turned off, and so on. Step 1704  
19 associates class types with *multiple different locations*. Each  
20 location is associated with a class *type*. Accordingly, at these  
21 locations, cell phone behavior of location-aware cell phones can  
22 be governed by the attributes that are associated with that class  
23 *type*. This provides a simple infrastructure for implementing  
24 context-aware phones. By utilizing the concept of class types,  
25 those individuals who are in charge of overseeing the context-  
awareness of their particular locations need not be concerned  
with anything other than selecting the correct class type for their  
location. They can do this by simply reviewing the attributes that  
are associated with the different class types and then selecting an  
appropriate class *type*.

1 In rejecting this claim, the Office cites to Kovacs for a mention of  
2 silent vibration during a concert. The relevant paragraph in col. 2 of page  
3 190 is provided below:

4 Another trend results from a high market pressure that mobile  
5 devices must adapt to the current user situation. For instance,  
6 customers require that a mobile telephone's call indication might  
7 be issued through different means, e.g., through a silent vibration  
8 while being in a (classic) concert or through a direct flashing in a  
9 noisy environment (like a rock concert). Other examples can be  
10 found through network features like call forwarding, universal  
11 personal identification numbers, or voice mailboxes.

12 Applicant respectfully submits that this brief mention of the need for  
13 different cell phone behaviors in different environments does not disclose  
14 "defining one or more *class types* each of which can be associated with a  
15 location for which a particular cellular phone behavior is desired."

16 In the Office's "Response to Arguments", the Office argues that "the  
17 environments such as hospital or theater would read on 'class types' as  
18 claimed." Applicant again respectfully but strongly disagrees. There is  
19 nothing in Kovacs that discloses or suggests anything beyond certain  
20 behavior defined for each location *instance*. This is quite different from  
21 defining one or more class *types* each of which can be associated with a  
22 location for which a particular cellular phone behavior is desired.  
23 Accordingly, for at least this reason, this claim is allowable.

24 **Claims 37-40** depend from claim 36 and, as such, are allowable as  
25 depending from an allowable base claim. These claims are also allowable  
for their own recited features which, in combination with those recited in  
claim 36, are neither shown nor suggested by the references of record either

1 singly or in combination with one another. In addition, given the  
2 allowability of the base claim, the rejection of claims 37, 38 and 40 over the  
3 combination with Te-eni, and of claim 39 over the combination with Te-eni  
4 and Finke-Anlauff is not seen to add anything of significance.

5  
6 **Claim 41**

7 **Claim 41** recites a method of managing cellular phone behavior  
8 comprising [emphasis only]:

- 9
- 10 • ***defining one or more class types*** each of which can be  
associated with a location for which a particular cellular  
11 phone behavior is desired;
  - 12 • associating attributes with the one or more class types, the  
attributes defining cellular phone behavior; and
  - 13 • ***associating a class type with a location*** for which a particular  
cellular phone behavior is desired.
- 14

15 In making out the rejection of this claim, the Office argues that the  
16 subject matter of this claim is anticipated or suggested by Kovacs.  
17 Specifically, the Office argues that Kovacs discloses one or more class  
18 types each of which can be associated with a location for which a particular  
19 cellular phone behavior is desired. Applicant respectfully but strongly  
20 disagrees.

21 Before discussing how the claimed subject matter is patentably  
22 distinct from Kovacs' disclosure, Applicant will discuss the meaning of  
23 "class types" as Applicant has defined the term in the specification.  
24 Applicant simplifies the association of location and behaviors through the  
25 use of multiple ***class types*** and various attributes that are associated with

1 the class types. Applicant describes this inventive concept on page 58 of  
2 the specification. Lines 3-18 of page 58 are reproduced below [emphasis  
3 added]:

4 Step 1700 defines one or more class types and step 1702  
5 associates attributes with the class types. The class types are  
6 intended to describe certain *types of locations* where, for  
7 example, certain cell phone behaviors are desired. The attributes  
8 that are associated with the class types define the cell phone  
9 behavior that is desired for that class *type*. Various examples of  
10 this are given in Fig. 16. For example, for a class type 1,  
11 attributes are that the ringer is turned off, and so on. Step 1704  
12 associates class types with *multiple different locations*. Each  
13 location is associated with a class *type*. Accordingly, at these  
14 locations, cell phone behavior of location-aware cell phones can  
15 be governed by the attributes that are associated with that class  
16 *type*. This provides a simple infrastructure for implementing  
17 context-aware phones. By utilizing the concept of class types,  
18 those individuals who are in charge of overseeing the context-  
19 awareness of their particular locations need not be concerned  
20 with anything other than selecting the correct class type for their  
21 location. They can do this by simply reviewing the attributes that  
22 are associated with the different class types and then selecting an  
23 appropriate class *type*.  
24  
25

17 In rejecting this claim, the Office cites to Kovacs for a mention of  
18 silent vibration during a concert. The relevant paragraph in col. 2 of page  
19 190 is provided below:

20 Another trend results from a high market pressure that mobile  
21 devices must adapt to the current user situation. For instance,  
22 customers require that a mobile telephone's call indication might  
23 be issued through different means, e.g., through a silent vibration  
24 while being in a (classic) concert or through a direct flashing in a  
25 noisy environment (like a rock concert). Other examples can be  
found through network features like call forwarding, universal  
personal identification numbers, or voice mailboxes.

1 Applicant respectfully submits that this brief mention of the need for  
2 different cell phone behaviors in different environments does not disclose  
3 “defining one or more *class types* each of which can be associated with a  
4 location for which a particular cellular phone behavior is desired,  
5 associating attributes with the one or more class types, the attributes  
6 defining cellular phone behavior, and associating a class type with a  
7 location for which a particular cellular phone behavior is desired.”

8 In the Office’s “Response to Arguments”, the Office argues that “the  
9 environments such as hospital or theater would read on ‘class types’ as  
10 claimed.” Applicant again respectfully but strongly disagrees. There is  
11 nothing in Kovacs that discloses or suggests anything beyond certain  
12 behavior defined for each location *instance*. This is quite different from  
13 defining one or more class *types* each of which can be associated with a  
14 location for which a particular cellular phone behavior is desired.  
15 Accordingly, for at least this reason, this claim is allowable.

16  
17 **Claims 42-47**

18 **Claim 42** recites a method of managing cellular phone behavior  
19 comprising [emphasis added]:

- 20
- 21 • *associating a class type with a location* for which a particular  
cellular phone behavior is desired, the class type having  
22 attributes that define the cellular phone’s behavior; and
  - 23 • *wirelessly transmitting information pertaining to the class*  
*type* for reception by cellular phones in the location, the  
24 information being configured to be used by cellular phones to  
25 automatically adjust one or more behaviors.

1 In making out the rejection of this claim, the Office argues that the  
2 subject matter of this claim is anticipated or suggested by Kovacs.  
3 Specifically, the Office argues that Kovacs discloses one or more class  
4 types each of which can be associated with a location for which a particular  
5 cellular phone behavior is desired. Applicant respectfully but strongly  
6 disagrees.

7 Before discussing how the claimed subject matter is patentably  
8 distinct from Kovacs' disclosure, Applicant will discuss the meaning of  
9 "class types" as Applicant has defined the term in the specification.  
10 Applicant simplifies the association of location and behaviors through the  
11 use of multiple *class types* and various attributes that are associated with  
12 the class types. Applicant describes this inventive concept on page 58 of  
13 the specification. Lines 3-18 of page 58 are reproduced below [emphasis  
14 added]:

15 Step 1700 defines one or more class types and step 1702  
16 associates attributes with the class types. The class types are  
17 intended to describe certain *types of locations* where, for  
18 example, certain cell phone behaviors are desired. The attributes  
19 that are associated with the class types define the cell phone  
20 behavior that is desired for that class *type*. Various examples of  
21 this are given in Fig. 16. For example, for a class type 1,  
22 attributes are that the ringer is turned off, and so on. Step 1704  
23 associates class types with *multiple different locations*. Each  
24 location is associated with a class *type*. Accordingly, at these  
25 locations, cell phone behavior of location-aware cell phones can  
be governed by the attributes that are associated with that class  
*type*. This provides a simple infrastructure for implementing  
context-aware phones. By utilizing the concept of class types,  
those individuals who are in charge of overseeing the context-  
awareness of their particular locations need not be concerned  
with anything other than selecting the correct class type for their  
location. They can do this by simply reviewing the attributes that



1 are associated with the different class types and then selecting an  
2 appropriate class *type*.

3 In rejecting this claim, the Office cites to Kovacs for a mention of  
4 silent vibration during a concert. The relevant paragraph in col. 2 of page  
5 190 is provided below:

6 Another trend results from a high market pressure that mobile  
7 devices must adapt to the current user situation. For instance,  
8 customers require that a mobile telephone's call indication might  
9 be issued through different means, e.g., through a silent vibration  
10 while being in a (classic) concert or through a direct flashing in a  
noisy environment (like a rock concert). Other examples can be  
found through network features like call forwarding, universal  
personal identification numbers, or voice mailboxes.

11 Applicant respectfully submits that this brief mention of the need  
12 for different cell phone behaviors in different environments does not  
13 disclose "*associating a class type with a location* for which a particular  
14 cellular phone behavior is desired, the class type having attributes that  
15 define the cellular phone's behavior; and *wirelessly transmitting*  
16 *information pertaining to the class type* for reception by cellular  
17 phones in the location, the information being configured to be used by  
18 cellular phones to automatically adjust one or more behaviors."

19 In the Office's "Response to Arguments", the Office argues that "the  
20 environments such as hospital or theater would read on 'class types' as  
21 claimed." Applicant again respectfully but strongly disagrees. There is  
22 nothing in Kovacs that discloses or suggests anything beyond certain  
23 behavior defined for each location *instance*. This is quite different from  
24 defining one or more class *types* each of which can be associated with a  
25

1 location for which a particular cellular phone behavior is desired.

2 Accordingly, for at least this reason, this claim is allowable.

3 **Claims 43-47** depend from claim 42 and, as such, are allowable as  
4 depending from an allowable base claim. These claims are also allowable  
5 for their own recited features which, in combination with those recited in  
6 claim 42, are neither shown nor suggested by the references of record either  
7 singly or in combination with one another. Additionally, given the  
8 allowability of the base claim, the rejection of claims 43-47 over the  
9 combination with Te-eni is not seen to add anything of significance.

10  
11 **Claim 48**

12 **Claim 48** recites a location-aware cell phone that can, using only  
13 information that it receives and its on-board componentry, determine its  
14 location and automatically adjust one or more of its settings so that it  
15 behaves in a manner that has been defined for that location by someone  
16 other than a user of the cell phone.

17 In making out the rejection of this claim, the Office argues that the  
18 subject matter of this claim is suggested by Kuwahara. However,  
19 Kuwahara *requires the user to define* an execution service to be executed  
20 in a user-defined location. As such, Kuwahara teaches directly *away* from  
21 the claimed subject matter. Accordingly, for at least this reason, this claim  
22 is allowable.

*new  
matter*

23  
24 **Claim 50**

1           **Claim 50** recites a method of operating a cellular phone comprising  
2 [emphasis added]:

- 3           • providing a cellular phone; and
- 4           • determining, with the cellular phone, a present cellular phone  
5           location wherein said determining comprises:
  - 6           ○ receiving location information;
  - 7           ○ *accessing one or more hierarchical tree structures*  
8           having nodes that correspond to locations; and
  - 9           ○ using the location information to *traverse at least*  
10           *portions of the one or more tree structures* to  
11           ascertain the present location.

12           In making out the rejection of this claim, the Office argues that the  
13 subject matter of this claim is suggested by Kuwahara. Specifically, the  
14 Office argues that it would have been obvious to use a hierarchical  
15 traversable tree structure in order to traverse from the reported location of  
16 Kuwahara's zone area to get a corresponding user-defined area vector  
17 name. Applicant respectfully but strongly disagrees.

18           In the Office's "Response to Arguments", the Office directs  
19 Applicant's attention to Fig. 21 of Kuwahara and argues that Kuwahara's  
20 area vector names are hierarchical information of location information. The  
21 Office then argues that it would have been obvious to one of ordinary skill  
22 in the art to modify Kuwahara to use a hierarchical traversable tree  
23 structure in order to traverse effectively from one mode to another mode,  
24 for setting the phone to operate according to the instructed mode.

25           Applicant has reviewed Fig. 21 of Kuwahara and respectfully  
maintains that there is *no* hierarchical structure to Kuwahara's area vector

1 names and reported location information. Hence, there would be no  
2 suggestion to use a hierarchical tree structure to represent Kuwahara's area  
3 vector names and reported location information.

4 Accordingly, the Office has failed to establish a *prima facie* case of  
5 obviousness and this claim is allowable.

### 7 **Claims 51-53**

8 **Claim 51** recites a *cellular phone* comprising [emphasis added]:

- 9
- 10 • one or more computer-readable media;
- 11 • one or more hierarchical traversable tree structures resident  
12 on the computer-readable media, the tree structures  
comprising individual nodes each of which being associated  
with a phone context; and
- 13 • one or more processors *configured to*:
  - 14 ○ receive information that pertains to a current context of  
the cellular phone;
  - 15 ○ *automatically determine the current context* based on  
the information by traversing at least one node on one  
of the trees; and
  - 16 ○ modify at least one behavior of the cellular phone  
responsive to the current context.
- 17

18 In making out the rejection of this claim, the Office argues that the  
19 subject matter of this claim is suggested by the combination of Te-eni and  
20 Nelson. Here again, the Office relies on Te-eni in arguing that it discloses a  
21 cellular phone which is capable of determining its location. As noted above  
22 numerous times, this is simply not the case. As such, the Office has not  
23 established a *prima facie* case of obviousness.  
24  
25

1 Further, the Office then states that although Te-eni fails to disclose a  
2 hierarchical traversable tree structure associated with phone context, such  
3 use of a hierarchical traversable tree structure is known in the art as  
4 disclosed by Nelson. Applicant traverses the rejection and respectfully  
5 submits that the Office has further failed to establish a *prima facie* case of  
6 obviousness.

7 Exploring the context of Nelson in more detail, the hierarchical tree  
8 based scheme that Nelson discloses is one that is similar to one described as  
9 the Dataman system discussed in section 2.2.1. In Nelson's system, each  
10 leaf node of the tree represents a base station and the internal nodes of the  
11 tree represent location servers. See, e.g. section 2.2.2, first paragraph.  
12 According to the system described in section 2.2.2, each location server  
13 maintains information regarding mobile hosts residing in the subtree  
14 beneath it and maintains three tuples—a mobile host identifier that provides  
15 the address of the host's home location, a forwarding pointer that identifies  
16 which location server the host has moved to, and a timestamp that indicates  
17 the time that the last forwarding took place. Base stations are said to  
18 maintain a similar structure for each host contained within its cell. By  
19 using forwarding pointers various updates strategies can be used. Nelson  
20 instructs that periodically, the forwarding pointers are collapsed and a  
21 single pointer is created. Searching is conducted by progressively moving  
22 up the tree until a location server is found which contains a record for the  
23 required host.

24 Simply put, the hierarchical tree structure that Nelson discloses is  
25 neither utilized by mobile devices nor resident on the mobile devices.

1 Rather, the structure is utilized by either the base station or the location  
2 server to find a record for the required host. To this extent, Nelson teaches  
3 directly away from the subject matter of claim 51 which recites a cellular  
4 phone comprising one or more computer-readable media having one or  
5 more hierarchical traversable tree structures that are utilized to determine  
6 the current context as recited in this claim. Thus, the Office has failed to  
7 establish a *prima facie* case of obviousness for at least this additional  
8 reason.

9 Accordingly, for all of the reasons set forth above, this claim is  
10 allowable.

11 **Claims 52 and 53** depend from claim 51 and, as such, are allowable  
12 as depending from an allowable base claim. These claims are also  
13 allowable for their own recited features which, in combination with those  
14 recited in claim 51, are neither shown nor suggested by the references of  
15 record either singly or in combination with one another.

### 16 **Claims 54-57**

17 **Claim 54** recites a *cellular phone* comprising [emphasis added]:

- 18
- 19
- 20 • a context service module that is configured to receive  
21 different forms of information from multiple different types  
22 of context providers; and
  - 23 • one or more processors associated with the context service  
24 module and configured to:
    - 25 ○ receive information that pertains to a current context of  
the cellular phone;
    - *determine the current context* based on the  
information; and

- modify at least one behavior of the cellular phone responsive to the current context.

In making out the rejection this claim, the Office argues that Te-eni anticipates this claim. Applicant respectfully but strongly disagrees. As noted above, Te-eni simply does not disclose or suggest a *cellular phone* configured to *receive information that pertains to a current context of the cellular phone and determine the current context based on the information*. Accordingly, for at least this reason, this claim is allowable.

Claims 55-57 depend from claim 54 and, as such, are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 54, are neither shown nor suggested by the references of record either singly or in combination with one another. Additionally, given the allowability of the base claim, the rejection of claim 56 over the combination with Nelson adds nothing of significance.

#### **Claim 58**

**Claim 58** recites a *cellular phone* comprising [emphasis added]:

- location provider means for receiving different forms of location information;
- *means for ascertaining a location* from the location information; and
- means for modifying at least one behavior associated with the cellular phone responsive to ascertaining said location.

1 In making out the rejection of this claim, the Office argues that the  
2 subject matter of this claim is rendered obvious by the combination of Te-  
3 eni and Kuwahara. Here again, the Office relies on Te-eni in arguing that it  
4 discloses a cellular phone which is capable of determining its location. As  
5 noted above, this is simply not the case.

6 The Office then states that although Te-eni fails to disclose  
7 ascertaining its location from different forms of location information, such  
8 step is known in the art as disclosed by Kuwahara. Applicant traverses the  
9 rejection and respectfully submits that the Office has failed to make a *prima*  
10 *facie* case of obviousness.

11 Te-eni does not disclose or suggest a *cellular phone* comprising  
12 means for *ascertaining a location*. Hence, for at least this reason, the  
13 Office has failed to establish a *prima facie* case of obviousness. Given the  
14 failure of the Office to establish a *prima facie* case of obviousness, the  
15 Office's reliance on Kuwahara adds nothing of significance. Accordingly,  
16 for at least this reason, this claim is allowable.

### 17 18 Conclusion


19 All of the claims are in condition for allowance. Applicant has  
20 formally requested an interview with the examiner and the examiner's  
21 supervisor for the purpose of advancing prosecution in this matter.  
22 Applicant will contact the examiner and the examiner's supervisor within a  
23 few days of filing this Response to set up an interview. Applicant  
24 respectfully requests that the Office refrain from issuing an Office Action  
25 responsive to this response until such interview is able to be conducted.



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Respectfully submitted,

Dated: 1/23/04

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